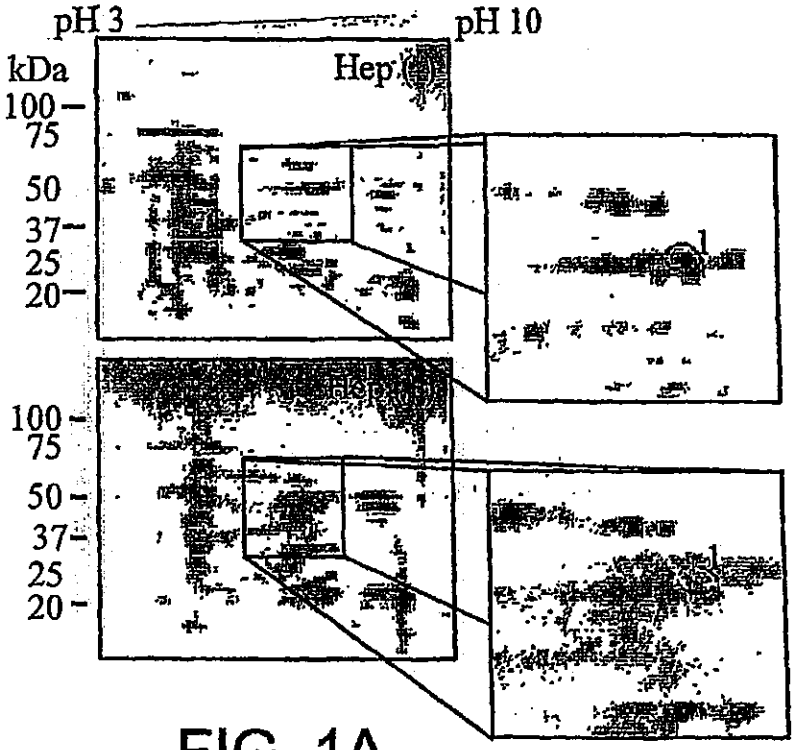

pH 3
pH 10
kDa
100
75
50
37
25
20
Hep
1
100
75
50
37
25
20
1

FIG. 1A

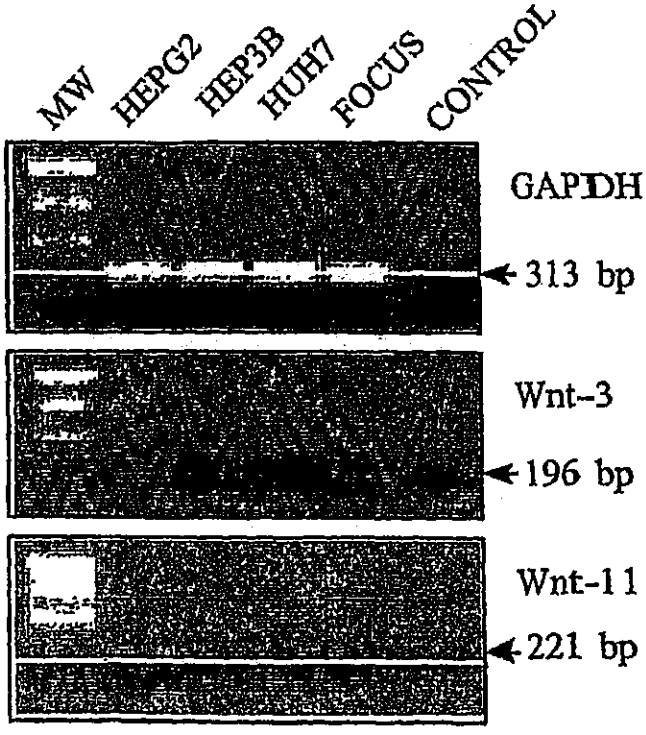

MW
HEPG2
HEP3B
HUH7
FOCUS
CONTROL
GAPDH
313 bp
Wnt-3
196 bp
Wnt-11
221 bp

FIG. 1C

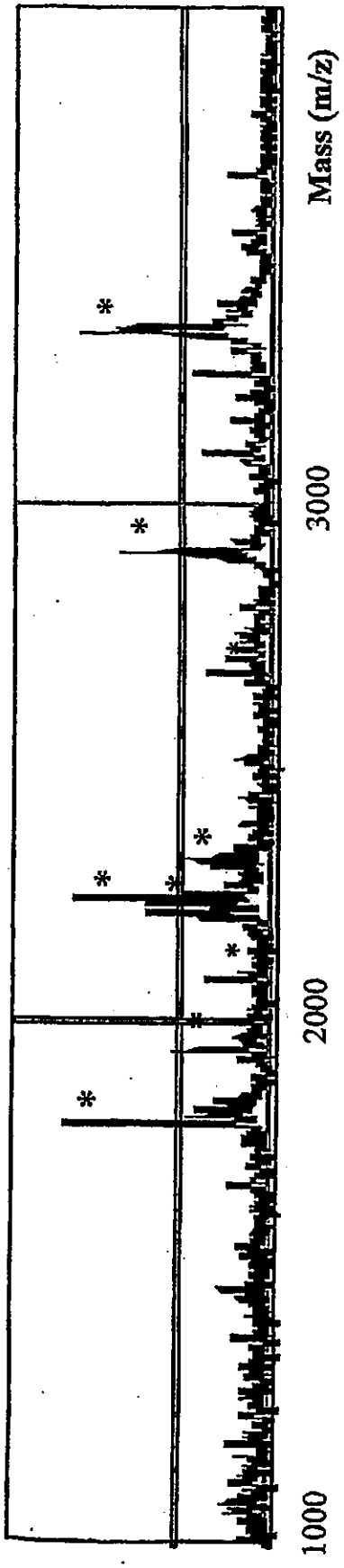


FIG. 1B

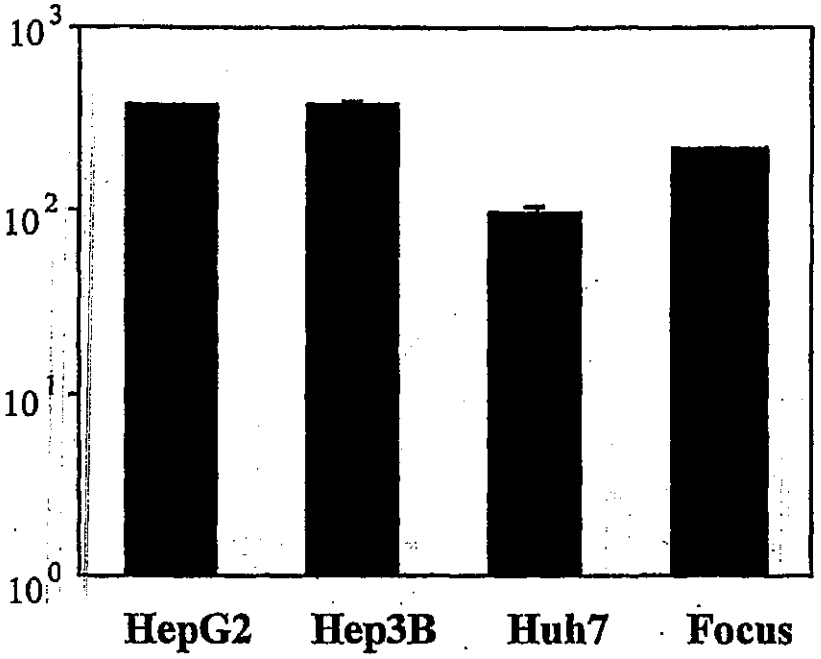

10^3
10^2
10^1
10^0
HepG2
Hep3B
Huh7
Focus

FIG. 2A

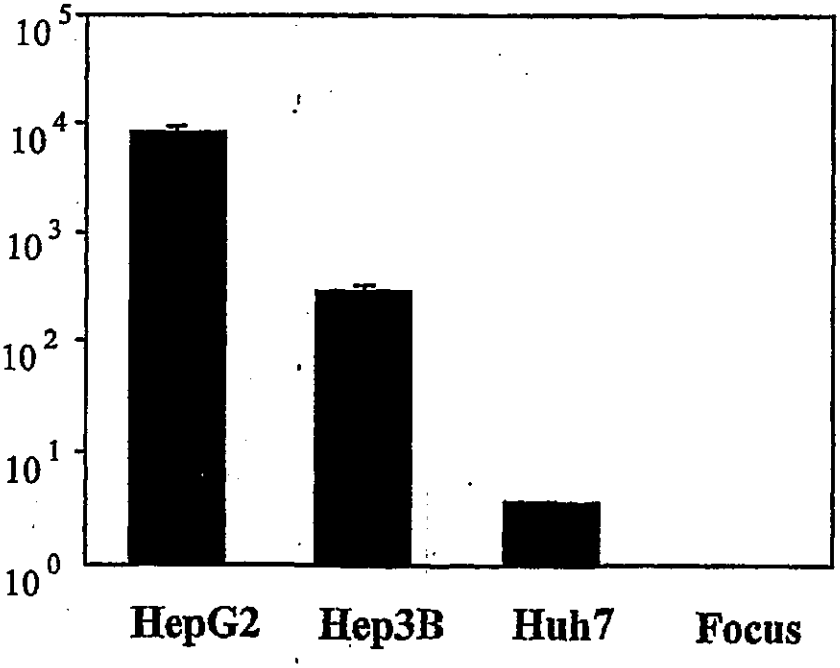

10^5
10^4
10^3
10^2
10^1
10^0
HepG2
Hep3B
Huh7
Focus

FIG. 2B

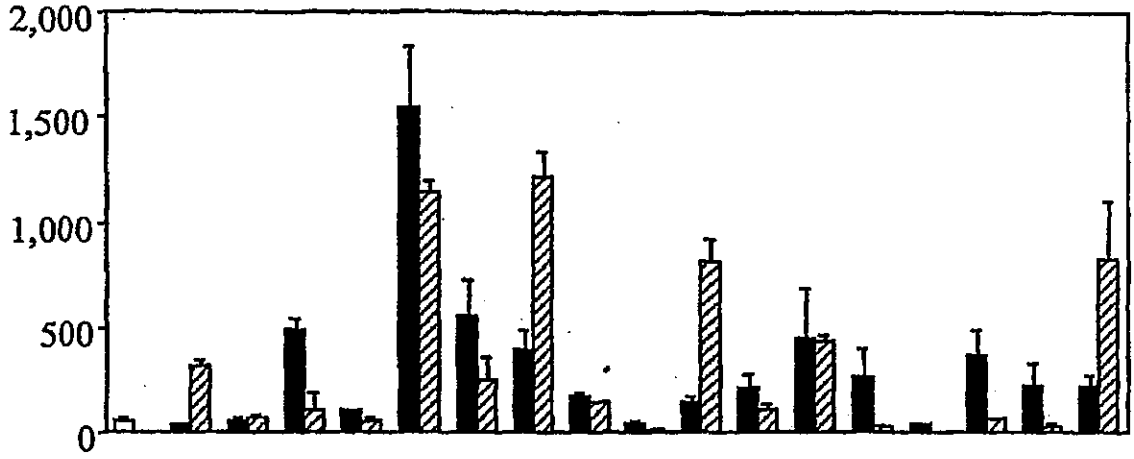


FIG. 3A

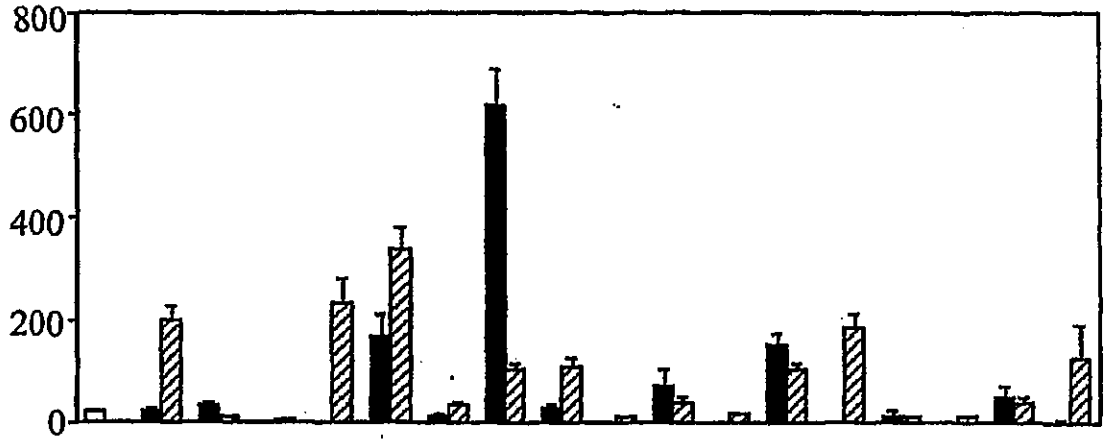


FIG. 3B

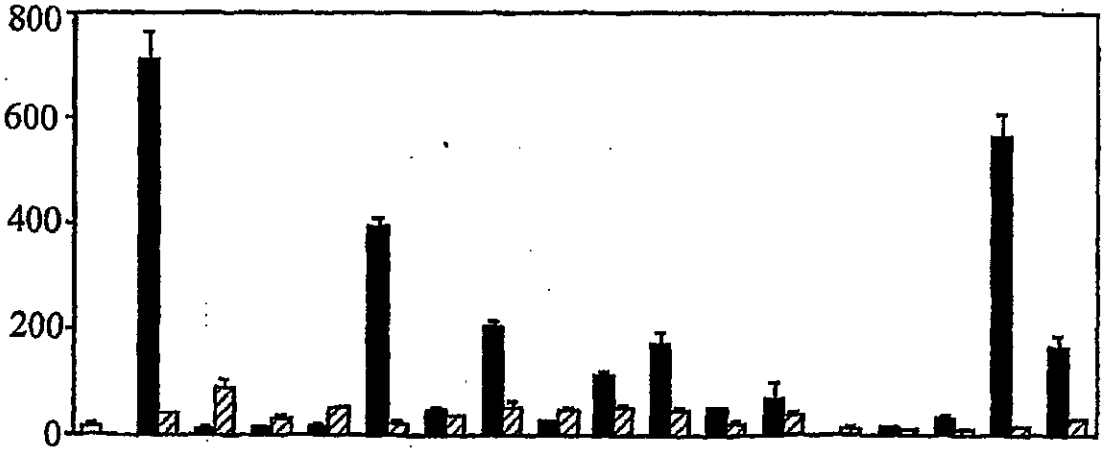


FIG. 3C

FIG. 4A

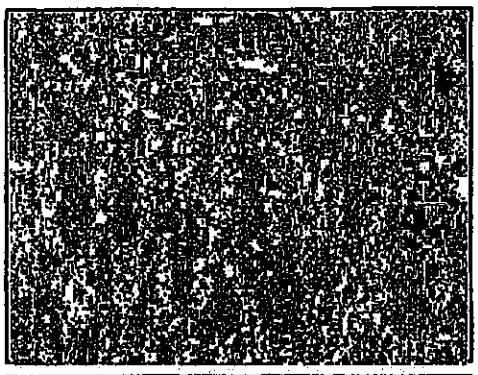


FIG. 4B

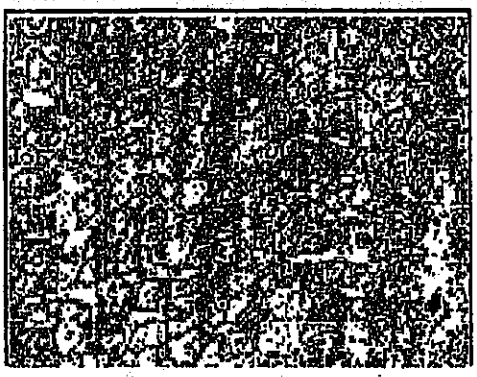


FIG. 4C

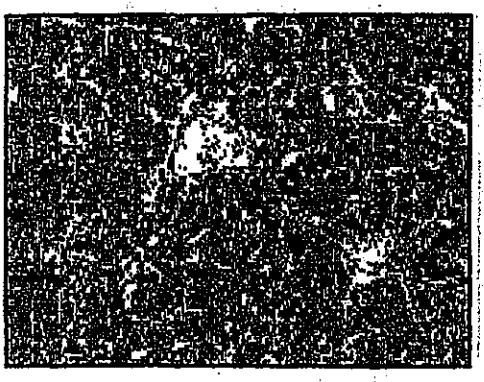
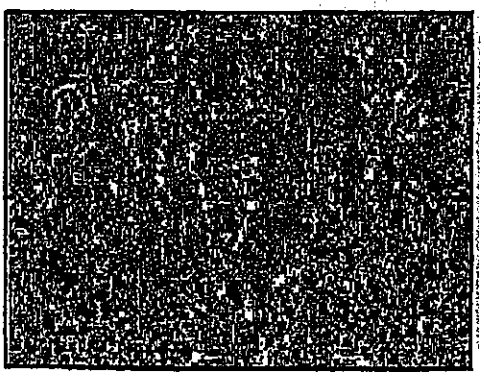


FIG. 4D



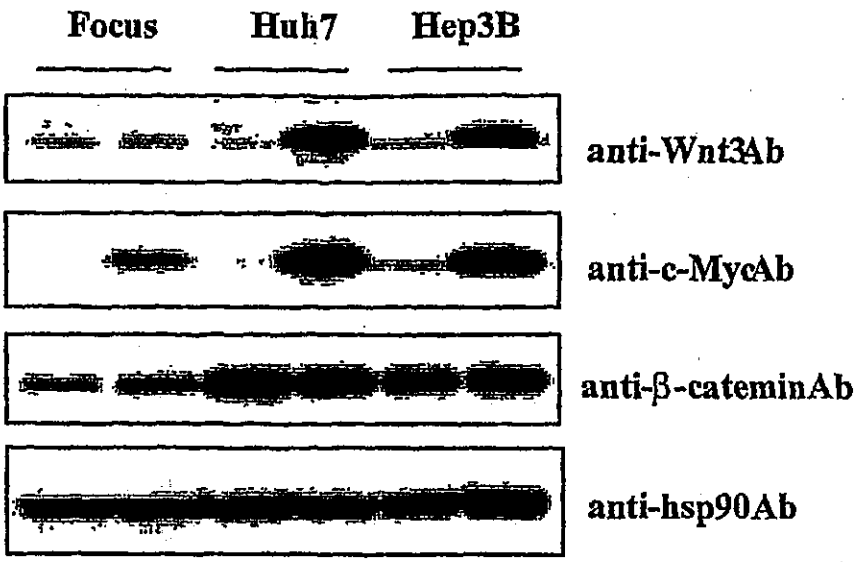

Focus
Huh7
Hep3B
anti-Wnt3Ab
anti-c-MycAb
anti-β-cateminAb
anti-hsp90Ab

FIG. 5A

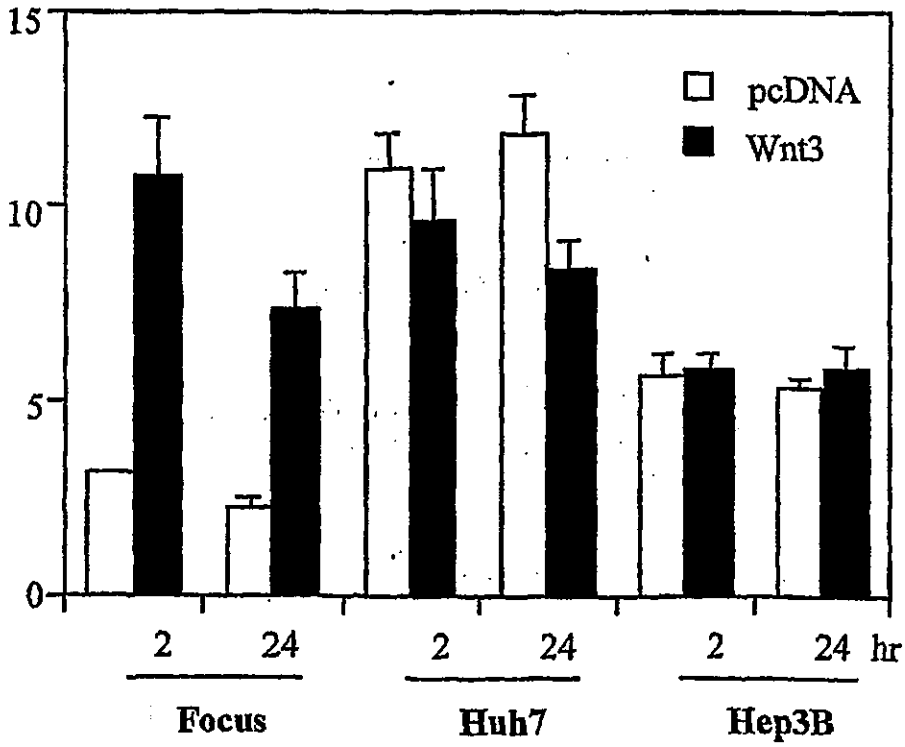

15
10
5
0
pcDNA
Wnt3
2
24
2
24
2
24
hr
Focus
Huh7
Hep3B

FIG. 5B

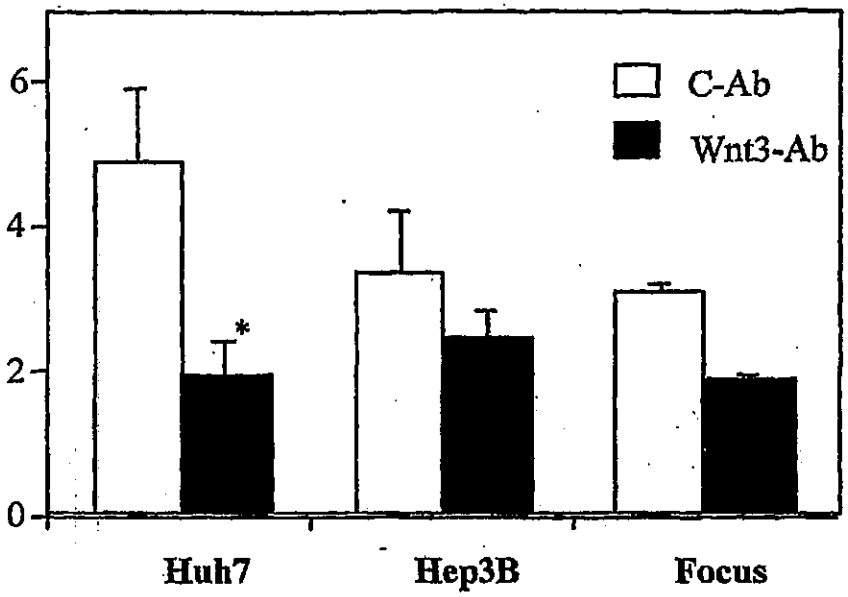

6
4
2
0
C-Ab
Wnt3-Ab
*
Huh7
Hep3B
Focus

FIG. 6A

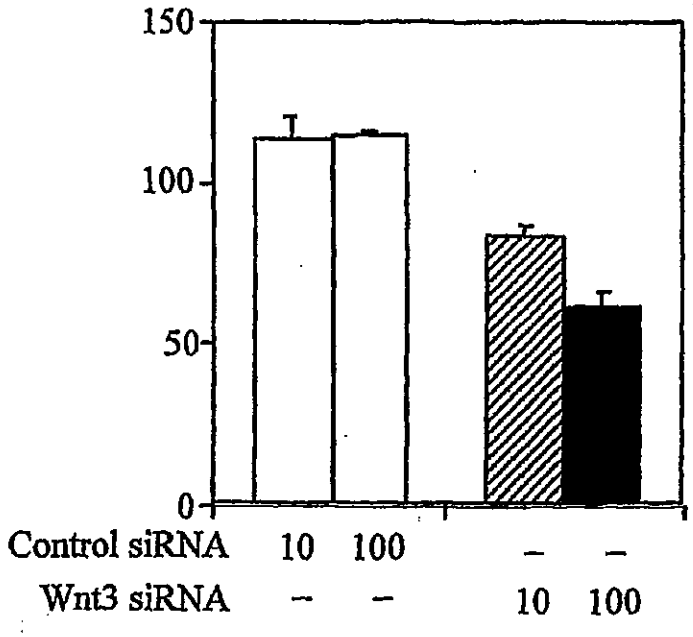

150
100
50
0
Control siRNA 10 100 – –
Wnt3 siRNA – – 10 100

FIG. 6B

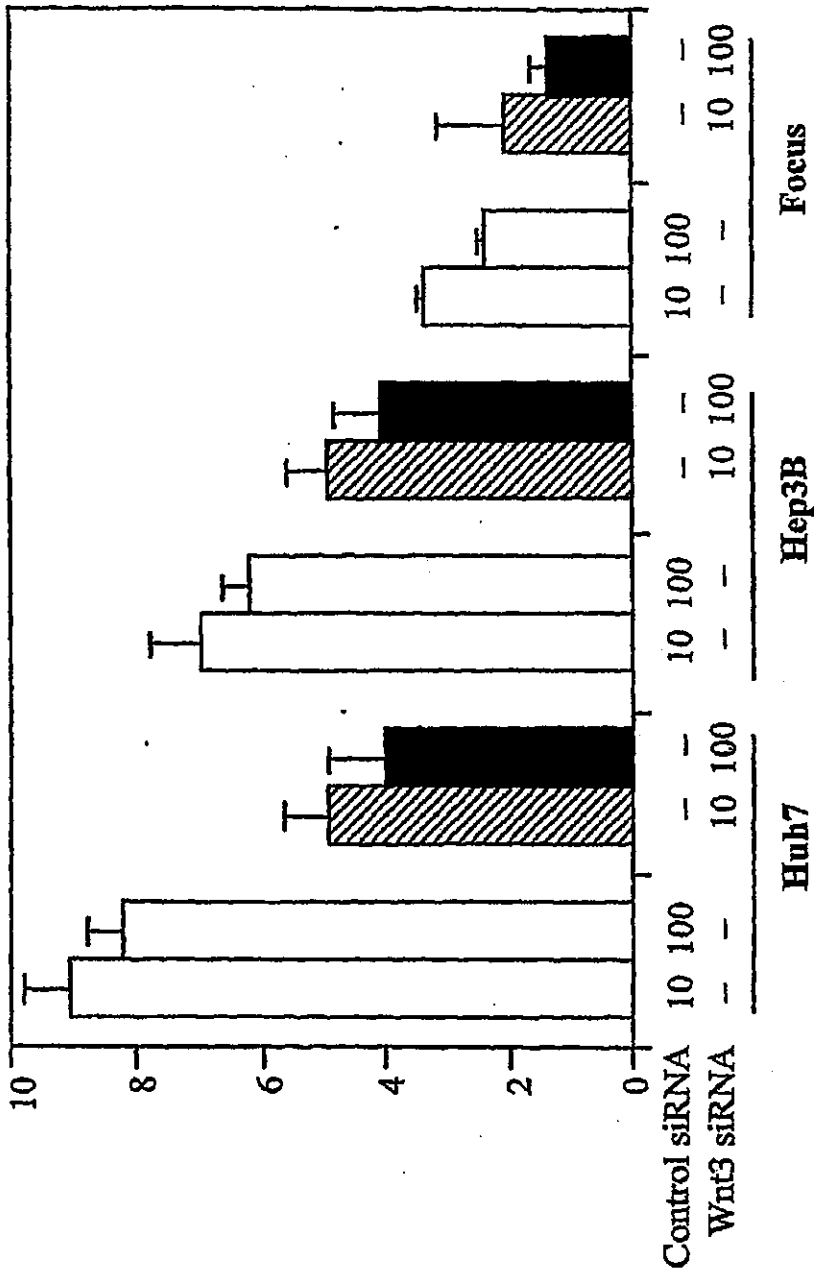

10
8
6
4
2
0
Control siRNA
Wnt3 siRNA
10 100 – – 10 100 – – 10 100 – – 10 100
– – 10 100 – – 10 100 – – 10 100
Huh7
Hep3B
Focus

FIG. 6C

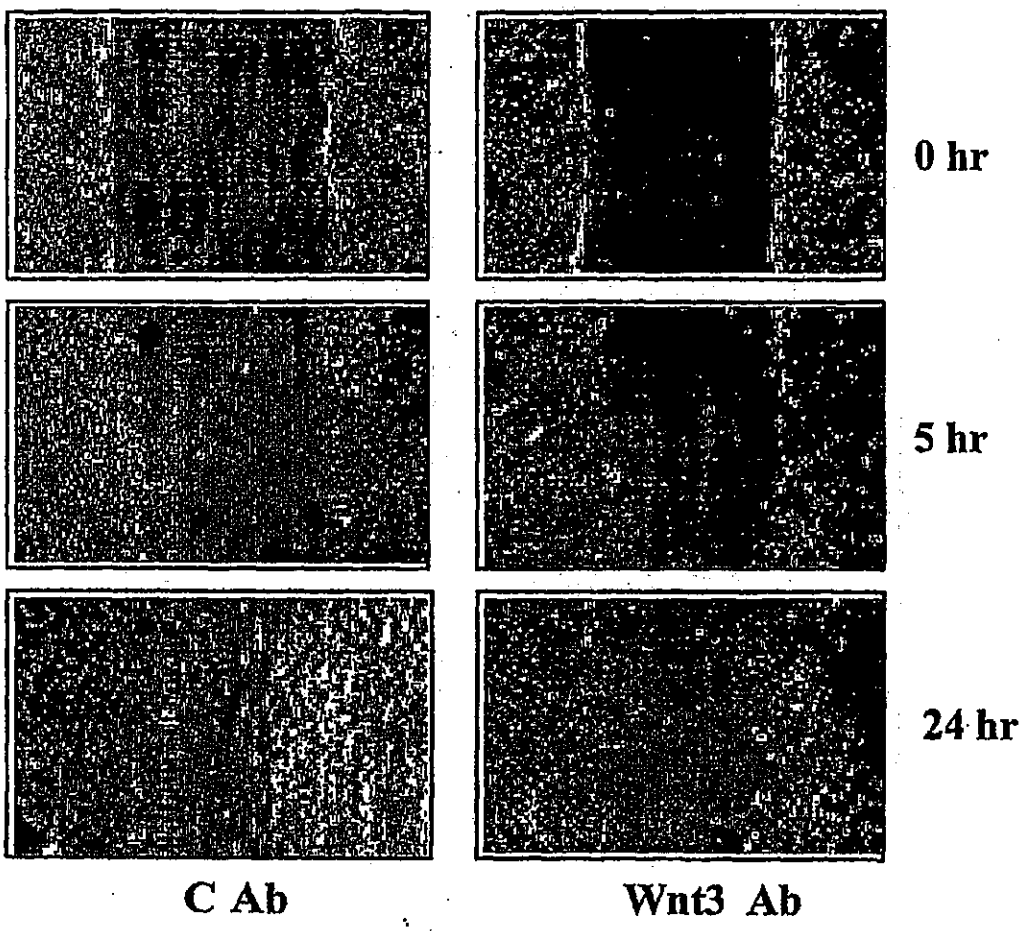


FIG. 7

Human Frizzled 7

Accession: O75084
Protein name: Frizzled 7 [Precursor]
DEFINITION: frizzled 7; Frizzled, drosophila, homolog of, 7; frizzled(Drosophila) homolog 7 [Homo sapiens].
ACCESSION NP_003498

ORIGIN (574 aa)

MRDPGAAVPL SSLGFCALVL ALLGALSAGA GAQPYHGEKG ISVPDHGFCQ PISIPLCTDI
AYNQTILPNL LGHTNQEDAG LEVHQFYPLV KVQCSPELRF FLCSMYAPVC TVLDQAIPPC
RSLCERARQG CEALMNKFGF QWPERLRCEN FPVHGAGEIC VGQNTSDGSG GPGGGPTAYP
TAPYLPDLPF TALPPGASDG KGRPAFPFSC PRQLKVPPYL GYRFLGERDC GAPCEPGRAN
GLMYFKEEER RFARLWVGVW SVLCCASTLF TVLTYLVDMR RFSYPERPII FLSGCYFMVA
VAHVAGFFLE DRAVCVERFS DDGYRTVAQG TKKEGCTILF MVLYFFGMAS SIWWVILSLT
WFLAAGMKWG HEAIEANSQY FHLAAWAVPA VKTITILAMG QVDGDLLNGV CYVGFSSVDA
LRGFVLAPLF VYFFIGTSFL LAGFVSFFRI RTIMKHDGTK TEKLEKLMVR IGVFSVLYTV
PATIVLACYF YEQAFREHWE RTWLLQTCKS YAVPCPPGHF PPMSPDFTVF MIKCLMTMIV
GITTGFWIWS GKTLQSWRRF YHRLSHSSKG ETAV (SEQ ID NO:1)

Human Frizzled 7 Putative ligand binding site

* Cystein-rich domain (CRD)

CQPISIPLCTDIAYNQTILPNLLGHTNQEDAGLEVHQFYPLVKVQCSPELRFFLCSMYAPVCRSLCERARQGC
EALMNKFGFQWPERLRCENFP (49-152) (SEQ ID NO:2)

Mouse Frizzled 7

Accession: Q61090
Protein name: Frizzled 7 [Precursor]
DEFINITION: frizzled 7 [Mus musculus].
ACCESSION NP_032083

ORIGIN (572 aa)

MRGPGTAASH SPLGLCALVL ALLGALPTDT RAQPYHGEKG ISVPDHGFCQ PISIPLCTDI
AYNQTILPNL LGHTNQEDAG LEVHQFYPLV KVQCSPELRF FLCSMYAPVC TVLDQAIPPC
RSLCERARQG CEALMNKFGF QWPERLRCEN FPVHGAGEIC VGQNTSDGSG GAGGSPTAYP
TAPYLPDPPF TAMSPSDGRG RLSFPFSCPR QLKVPPYLGY RFLGERDCGA PCEPGRANGL
MYFKEEERRF ARLWVGVWSV LSCASTLFTV LTYLVDMRRF SYPERPIIFL SGCYFMVAVA
HVAGFLLEDR AVCVERFSDD GYRTVAQGTK KEGCTILFMV LYFFGMASSI WWVILSLTWF
LAAGMKWGHE AIEANSQYFH LAAWAVPAVK TITILAMGQV DGDLLSGVCY VGLSSVDALR
GFVLAPLFVY LFIGTSFLLA GFVSLFRIRT IMKHDGTKTE KLEKLMVRIG VFSVLYTVPA
TIVLACYFYE QAFREHWERT WLLQTCKSYA VPCPPRHFSP MSPDFTVFMI KYLMTMIVGI
TTGFWIWSGK TLQSWRRFYH RLSHSSKGET AV(SEQ ID NO:3)

FIG. 8A

Human Frizzled 8

Accession: Q9H461
Protein name: Frizzled 8 [Precursor]

Origin (694 aa)

MEWGYLLEVT SLLAALALLQ RSSGAAAASA KELACQEITV PLCKGIGYNY TYMPNQFNHD
TQDEAGLEVH QFWPLVEIQC SPDLKFFLCS MYTPICLEDY KKPLPPCRSV CERAKAGCAP
LMRQYGFAWP DRMRCDRLPE QGNPDTLCMD YNRTDLTTAA PSPPRRLPPP PPGEQPPSGS
GHGRPPGARP PHRGGGRGGG GGDAAAPPAR GGGGGGKARP PGGGAAPCEP GCQCRAPMVS
VSSERHPLYN RVKTGQIANC ALPCHNPFFS QDERAFTVFW IGLWSVLCFV STFATVSTFL
IDMERFKYPE RPIIFLSACY LFVSVGYLVR LVAGHEKVAC SGGAPGAGGA GGAGGAAAGA
GAAGAGAGGP GGRGEYEELG AVEQHVRYET TGPALCTVVF LLVYFFGMAS SIWWVILSLT
WFLAAGMKWG NEAIAGYSQY FHLAAWLVPS VKSIAVLALS SVDGDPVAGI CYVGNQSLDN
LRGFVLAPLV IYLFIGTMFL LAGFVSLFRI RSVIKQQDGP TKTHKLEKLM IRLGLFTVLY
TVPAAVVVAC LFYEQHNRPR WEATHNCPCL RDLQPDQARR PDYAVFMLKY FMCLVVGITS
GVWVWSGKTL ESWRSLCTRC CWASKGAAVG GGAGATAAGG GGGPGGGGGG GPGGGGGPGG
GGGSLYSDVS TGLTWRSGTA SSVSYPKQMP LSQV(SEQ ID NO:4)

Human FZD8 Putative ligand binding site

* Cystein-rich domain (CRD)

CQEITVPLCKGIGYNYTYMPNQFNHDTQDEAGLEVHQFWPLVEIQCSPDLKFFLCSMYTPICLED
YKKPLPPCRSVCERAKAGCAPLMRQYGFAWPDRMRCDRLP (35-139) ((SEQ ID NO:5)

Mouse Frizzled 8

Accession: Q61091
Protein name: Frizzled 8 [Precursor]

Origin (685 aa)

MEWGYLLEVT SLLAALAVLQ RSSGAAAASA KELACQEITV PLCKGIGYNY TYMPNQFNHD
TQDEAGLEVH QFWPLVEIQC SPDLKFFLCS MYTPICLEDY KKPLPPCRSV CERAKAGCAP
LMRQYGFAWP DRMRCDRLPE QGNPDTLCMD YNRTDLTTAA PSPPRRLPPP PPPGEQPPSG
SGHSRPPGAR PPHRGGSSRG SGDAAAAPPS RGGKARPPGG GAAPCEPGCQ CRAPMVSVSS
ERHPLYNRVK TGQIANCALP CHNPFFSQDE RAFTVFWIGL WSVLCFVSTF ATVSTFLIDM
ERFKYPERPI IFLSACYLFV SVGYLVRLVA GHEKVACSGG APGAGGRGGA GGAAAAGAGA
AGRGASSPGA RGEYEELGAV EQHVRYETTG PALCTVVFLL VYFFGMASSI WWVILSLTWF
LAAGMKWGNE AIAGYSQYFH LAAWLVPSVK SIAVLALSSV DGDPVAGICY VGNQSLDNLR
GFVLAPLVIY LFIGTMFLLA GFVSLFRIRS VIKQQGGPTK THKLEKLMIR LGLFTVLYTV
PAAVVVACLF YEQHNRPRWE ATHNCPCLRD LQPDQARRPD YAVFMLKYFM CLVVGITSGV
WVWSGKTLES WRALCTRCCW ASKGAAVGAG AGGSGPGGSG PGPGGGGGHG GGGGSLYSDV
STGLTWRSGT ASSVSYPKQM PLSQV (SEQ ID NO:6)

FIG. 8B

Human Wnt3

Accession P56703
Protein name: Wnt-3 proto-oncogene protein [Precursor]
ACCESSION NP_110380
Definition: wingless-type MMTV integration site family, member 3; WNT-3 proto-oncogene protein precursor [Homo sapiens]

ORIGIN (355 aa)
MEPHLLGLLL GLLLGGTRVL AGYPIWWSLA LGQQYTSLGS QPLLCGSIPG LVPKQLRFCR
NYIEIMPSVA EGVKLGIQEC QHQFRGRRWN CTTIDDSLAI FGPVLDKATR ESAFVHAIAS
AGVAFAVTRS CAEGTSTICG CDSHHKGPPG EGWKWGGCSE DADFGVLVSR EFADARENRP
DARSAMNKHN NEAGRTTILD HMHLKCKCHG LSGSCEVKTC WWAQPDFRAI GDFLKDKYDS
ASEMVVEKHR ESRGWVETLR AKYSLFKPPT ERDLVYYENS PNFCEPNPET GSFGTRDRTC
NVTSHGIDGC DLLCCGRGHN TRTEKRKEKC HCIFHWCCYV SCQECIRIYD VHTCK(SEQ ID NO:7)

Putative binding motifs

Human Wnt3

* Secreted growth factor protein (motif or domain)
1) RESAFVHAIASAGVA (110-124) (SEQ ID NO:8)
2) RSCAEGTSTICGCD (129-142) (SEQ ID NO:9)
3) WKWGGCSEDADFG (153-165) (SEQ ID NO:10)
4) CKCHGLSGSCEVKTCW (206-221) (SEQ ID NO:11)
5) DLVYYENSPNFC (273-284) (SEQ ID NO:12)

Mouse Wnt3

Accession: P17553
Protein name: Wnt-3 proto-oncogene protein [Precursor]
DEFINITION:wingless-related MMTV integration site 3 [Mus musculus].
ACCESSION NP_033547

ORIGIN (355 aa)
MEPHLLGLLL GLLLSGTRVL AGYPIWWSLA LGQQYTSLAS QPLLCGSIPG LVPKQLRFCR
NYIEIMPSVA EGVKLGIQEC QHQFRGRRWN CTTIDDSLAI FGPVLDKATR ESAFVHAIAS
AGVAFAVTRS CAEGTSTICG CDSHHKGPPG EGWKWGGCSE DADFGVLVSR EFADARENRP
DARSAMNKHN NEAGRTTILD HMHLKCKCHG LSGSCEVKTC WWAQPDFRAI GDFLKDKYDS
ASEMVVEKHR ESRGWVETLR AKYALFKPPT ERDLVYYENS PNFCEPNPET GSFGTRDRTC
NVTSHGIDGC DLLCCGRGHN TRTEKRKEKC HCVFHWCCYV SCQECIRIYD VHTCK(SEQ ID NO:13)

FIG. 8C

Human Wnt8B

Accession: Q93098
Protein name: Wnt-8b protein [Precursor]
DEFINITION: wingless-type MMTV integration site family, member 8B precursor [Homo sapiens].
ACCESSION: NP_003384

ORIGIN (351 aa)
MFLSKPSVYI CLFTCVLQLS HSWSVNNFLM TGPKAYLIYS SSVAAGAQSG IEECKYQFAW
DRWNCPERAL QLSSHGGLRS ANRETAFVHA ISSAGVMYTL TRNCSLGDFD NCGCDDSRNG
QLGGQGWLWG GCSDNVGFGE AISKQFVDAL ETGQDARAAM NLHNNEAGRK AVKGTMKRTC
KCHGVSGSCT TQTCWLQLPE FREVGAHLKE KYHAALKVDL LQGAGNSAAA RGAIADTFRS
ISTRELVHLE DSPDYCLENK TLGLLGTEGR ECLRRGRALG RWELRSCRRL CGDCGLAVEE
RRAETVSSCN CKFHWCCAVR CEQCRRRVTK YFCSRAERPR GGAAHKPGRK P (SEQ ID NO:14)

Putative binding motifs

Human Wnt8b

* Secreted growth factor protein (motif or domain)
1) RETAFVHAISSAGVM (83-97) (SEQ ID NO:15)
2) RNCSLGDFDNCGCD (102-115) (SEQ ID NO:16)
3) WLWGGCSDNVGFG (127-139) (SEQ ID NO:17)
4) CKCHGVSGSCTTQTCW (180-195) (SEQ ID NO:18)
5) ELVHLEDSPDYC (245-256) (SEQ ID NO:19)

Mouse Wnt8B

Accession: Q9WUD6
Protein name: Wnt-8b protein [Precursor]
DEFINITION: wingless related MMTV integration site 8b [Mus musculus].
ACCESSION NP_035850

ORIGIN (350 aa)
MFLMKPVCVL LVTCVLHRSH AWSVNNFLMT GPKAYLVYSS SVAAGAQSGI EECKYQFAWD
RWNCPERALQ LSSHGGLRSA NRETAFVHAI SSAGVMYTLT RNCSLGDFDN CGCDDSRNGQ
LGGQGWLWGG CSDNVGFGEA ISKQFVDALE TGQDARAAMN LHNNEAGRKA VKGTMKRTCK
CHGVSGSCTT QTCWLQLPEF REVGAHLKEK YHAALKVDLL QGAGNSAAGR GAIADTFRSI
STRELVHLED SPDYCLENKT LGLLGTEGRE CLRRGRALGR WERRSCRRLC GDCGLAVEER
RAETVSSCNC KFHWCCAVRC EQCRRRVTKY FCSRAERPPR GAAHKPGKNS (SEQ ID NO:20)

FIG. 8D

Human Wnt 11

Accession: O96014
Protein name: Wnt-11 protein [Precursor]
DEFINITION: wingless-type MMTV integration site family, member 11 precursor [Homo sapiens]
ACCESSION NP_004617

ORIGIN (354 aa)
MRARPQVCEA LLFALALQTG VCYGIKWLAL SKTPSALALN QTQHCKQLEG LVSAQVQLCR
SNLELMHTVV HAAREVMKAC RRAFADMRWN CSSIELAPNY LLDLERGTRE SAFVYALSAA
AISHAIARAC TSGDLPGCSC GPVPGEPPGP GNRWGGCADN LSYGLLMGAK FSDAPMKVKK
TGSQANKLMR LHNSEVGRQA LRASLEMKCK CHGVSGSCSI RTCWKGLQEL QDVAADLKTR
YLSATKVVHR PMGTRKHLVP KDLDIRPVKD SELVYLQSSP DFCMKNEKVG SHGTQDRQCN
KTSNGSDSCD LMCCGRGYNP YTDRVVERCH CKYHWCCYVT CRRCERTVER YVCK (SEQ ID NO:21)

Putative binding motifs

Human Wnt11

* Secreted growth factor protein (motif or domain)
1) RESAFVYALSAAAIS (109-123) (SEQ ID NO:22)
2) RACTSGDLPGCSCG (128-141) (SEQ ID NO:23)
3) NRWGGCADNLSYG (152-164) (SEQ ID NO:24)
4) **CKCHGVSGSCSIRTCW (209-224)** (SEQ ID NO:25)
5) ELVYLQSSPDFC (272-283) (SEQ ID NO:26)

Mouse Wnt 11

Accession: P48615
Protein name: Wnt-11 protein [Precursor]
DEFINITION: wingless-related MMTV integration site 11 [Mus musculus].
ACCESSION NP_033545

ORIGIN (354 aa)
MRARPQVCEA LLFALALHTG VCYGIKWLAL SKTPAALALN QTQHCKQLEG LVSAQVQLCR
SNLELMRTIV HAARGAMKAC RRAFADMRWN CSSIELAPNY LLDLERGTRE SAFVYALSAA
TISHTIARAC TSGDLPGCSC GPVPGEPPGP GNRWGGCADN LSYGLLMGAK FSDAPMKVKK
TGSQANKLMR LHNSEVGRQA LRASLETKCK CHGVSGSCSI RTCWKGLQEL QDVAADLKTR
YLSATKVVHR PMGTRKHLVP KDLDIRPVKD SELVYLQSSP DFCMKNEKVG SHGTQDRQCN
KTSNGSDSCD LMCCGRGYNP YTDRVVERCH CKYHWCCYVT CRRCERTVER YVCK (SEQ ID NO:27)

FIG. 8E